CRF Errors Edited by the STIC Systems Branch

Serial Number: __10/509, 472__ : CRF Edit Date: __10-7-04__
Edited by: __ZL__

____ Realigned nucleic-acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

____ Corrected the SEQ ID NO. Sequence numbers edited were:

_____

____ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

_____

__✓__ Deleted: __✓__ invalid beginning/end-of-file text ; ___ page numbers

____ Inserted mandatory headings/numeric identifiers, specifically:

_____

____ Moved responses to same line as heading/numeric identifier, specifically:

_____

____ Other:

_____
_____
_____

Revised 09/09/2003

PCT

RAW SEQUENCE LISTING   DATE: 10/07/2004
PATENT APPLICATION: US/10/509,472   TIME: 10:37:57

Input Set : **A:\pto.kd.txt**
Output Set: **N:\CRF4\10072004\J509472.raw**

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   3 <110> APPLICANT: University of Utah Research Foundation
   5 <120> TITLE OF INVENTION: ELASTIN PREVENTS OCCLUSION OF BODY VESSELS BY VASCULAR
SMOOTH
   6       MUSCLE CELLS
   8 <130> FILE REFERENCE: HYDR-PWO-005
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/509,472
C--> 11 <141> CURRENT FILING DATE: 2004-09-27
  13 <150> PRIOR APPLICATION NUMBER: 60/368084
  14 <151> PRIOR FILING DATE: 2002-03-27
  16 <160> NUMBER OF SEQ ID NOS: 6
  18 <170> SOFTWARE: PatentIn version 3.2
  20 <210> SEQ ID NO: 1
  21 <211> LENGTH: 2260
  22 <212> TYPE: DNA
  23 <213> ORGANISM: Homo sapiens
  25 <400> SEQUENCE: 1
  26 ctcgagaaga gagggctcca gctccccaca gtagcccctg ccttcctcct tcccaggcag      60
  28 gcggaggcac gcagatatac cattgacttc ccctcccctg cagcaggcac atcctgggca     120
  30 tcgagcttca gaccctgccc ctgagcagcc cctaacccca ccaacaaagg gtggcttggg     180
  32 ggggctttca ccccagcata atctccatca gctaccctca aagcaccccc aaataaacac     240
  34 acaccgtaag taagagctgt acactggctg tgtgcgtaca tcttcaagac aattctccca     300
  36 gcatgcccct accttccaaa attccagagc tgctccctcc aaagacccag ggaaaaggaa     360
  38 gggtttgtcc agggtcctgg ggtggccccg tatagaccaa agcctgataa ctgtcctaga     420
  40 agcagagtac ttgcagagcg agtgacggca actgtggtat tgacaccagt cctagcacca     480
  42 gctgaacaca gagcattttt gatctagcag aaatacaaga ccacgttgta tttgtctttg     540
  44 caataatctc ttagctagga atactgatca cctgtagaca gataaggaaa ctgatgctct     600
  46 gtggagaggt tttcctacca gaaaggctag agccagaaat ttacttctag gtccaccaat     660
  48 acctgccttt gaccaatgcc tgcatttgac ctttccacgc tgagccaccc ctgctggcac     720
  50 tccagactgc cacagtgctc ctgcctccac aaggggtctt taactcatcc ctcggagcca     780
  52 tcgtggtgca gggaaaagcc cacagggcgt gtggcttcca tgctgttccc tgactggctg     840
  54 tgacctagga caaggaacaa gtttccctct cctattctct aggtctcaca tttcttctcc     900
  56 tctagcagta gtgggaagtg aggggtgggg gacacgaccc tcccctgttc catcccacac     960
  58 tccaaccccc aaaatccccc agggtccccg tccagctcag tcctgggggc agaaatgcag    1020
  60 agttctccag gaacgtggtc ccagctgttt cagtgcaggc cgccccctcc tggccaccag    1080
  62 cggaatgtca gccttcccag aggggccggg agaacagcag tcgagaagct cccagactgg    1140
  64 tgtgggcgct agctgtgctc agcgtgggga tgggaggtga cccagtgata atgggaagct    1200
  66 gggctgcctg tcagtctgtg ggggctccc acctccctgt tcccccacag ggcacctggg    1260
  68 gatccagcct gatttttacc agacctgcgg cctgcatggg gctgggtata gggctgtgac    1320
  70 cttgacccat gcagaataga accctgtgtg tcgggatcct ccatgtgctc cagatgcccc    1380
  72 tggggacagc accaacatgg ccttaactcc caagccattc ccctgcctct aaccccctgg    1440
  74 catctgcagg catccacccc agacccaccc aacacctcct ccccagcttc aggcgctagg    1500
  76 cagagacctt ggcccctgca gaatgcagcc ctgtccaggg tccctacct tcccccaga    1560
  78 tccctcccag agcaatacca acccgggcct accttccagg ccattcaacc tgcagccccc    1620
  80 cggcctctgt agacatcgca ccccccaaac cccagacct gcccaatgcc tccctcccc    1680
```

RAW SEQUENCE LISTING   DATE: 10/07/2004
PATENT APPLICATION: US/10/509,472   TIME: 10:37:57

Input Set : **A:\pto.kd.txt**
Output Set: **N:\CRF4\10072004\J509472.raw**

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82  agctttgggc agaacctgtc tctagccaga cctggggggtg ttggggagtc tggagggccg    1740
84  gggtggggggc tgaggcgcgg gacagctggc ccgtatcctc acactgggcc cagccggagg    1800
86  ggcggggggcc tggccactcg ggccttggct ggggctggga ttttttggcct ggccgccagg    1860
88  ccctcccttc tgcttcctct cccgagggct gtcctggcag aggccccccct cgctctttct    1920
90  ggcgggaaca gggccagcag cgaaagaaca gtcgcagagg gaaagcggga aagagatggg    1980
92  ggaaagtgtg tgtgtgtgag tgtgtgcttg tgtgcatgtg tgtgcgtgtg ttgtgtcaag    2040
94  aaaaaagctc gcagtccagc agcccgggcc tgggaggctt gtgagccggg cctttcgtaa    2100
96  ttgtcccctc cccgcggccc cctcccccag gcctccccccc tctcccgccc tcccgcccgc    2160
98  cctctctccc tccctctttc cctcacagcc gacgaggcaa caattaggct ttggggataa    2220
100 aacgaggtgc ggagagcggg ctggggcatt tctccccgag                           2260
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103 <210> SEQ ID NO: 2
104 <211> LENGTH: 757
105 <212> TYPE: PRT
106 <213> ORGANISM: Homo sapiens

108 <400> SEQUENCE: 2
110 Met Ala Gly Leu Thr Ala Ala Ala Pro Arg Pro Gly Val Leu Leu Leu
111 1   5   10   15
114 Leu Leu Ser Ile Leu His Pro Ser Arg Pro Gly Gly Val Pro Gly Ala
115   20   25   30
118 Ile Pro Gly Gly Val Pro Gly Gly Val Phe Tyr Pro Gly Ala Gly Leu
119   35   40   45
122 Gly Ala Leu Gly Gly Gly Ala Leu Gly Pro Gly Gly Lys Pro Leu Lys
123   50   55   60
126 Pro Val Pro Gly Gly Leu Ala Gly Ala Gly Leu Gly Ala Gly Leu Gly
127 65   70   75   80
130 Ala Phe Pro Ala Val Thr Phe Pro Gly Ala Leu Val Pro Gly Gly Val
131   85   90   95
134 Ala Asp Ala Ala Ala Ala Tyr Lys Ala Ala Lys Ala Gly Ala Gly Leu
135   100   105   110
138 Gly Gly Val Pro Gly Val Gly Gly Leu Gly Val Ser Ala Gly Ala Val
139   115   120   125
142 Val Pro Gln Pro Gly Ala Gly Val Lys Pro Gly Lys Val Pro Gly Val
143   130   135   140
146 Gly Leu Pro Gly Val Tyr Pro Gly Gly Val Leu Pro Gly Ala Arg Phe
147 145   150   155   160
150 Pro Gly Val Gly Val Leu Pro Gly Val Pro Thr Gly Ala Gly Val Lys
151   165   170   175
154 Pro Lys Ala Pro Gly Val Gly Gly Ala Phe Ala Gly Ile Pro Gly Val
155   180   185   190
158 Gly Pro Phe Gly Gly Pro Gln Pro Gly Val Pro Leu Gly Tyr Pro Ile
159   195   200   205
162 Lys Ala Pro Lys Leu Pro Gly Gly Tyr Gly Leu Pro Tyr Thr Thr Gly
163   210   215   220
166 Lys Leu Pro Tyr Gly Tyr Gly Pro Gly Gly Val Ala Gly Ala Ala Gly
167 225   230   235   240
170 Lys Ala Gly Tyr Pro Thr Gly Thr Gly Val Gly Pro Gln Ala Ala Ala
171   245   250   255
174 Ala Ala Ala Ala Lys Ala Ala Ala Lys Phe Gly Ala Gly Ala Ala Gly
175   260   265   270

RAW SEQUENCE LISTING   DATE: 10/07/2004
PATENT APPLICATION: US/10/509,472   TIME: 10:37:57

Input Set : A:\pto.kd.txt
Output Set: N:\CRF4\10072004\J509472.raw

```
178 Val Leu Pro Gly Val Gly Gly Ala Gly Val Pro Gly Val Pro Gly Ala
179         275             280             285
182 Ile Pro Gly Ile Gly Gly Ile Ala Gly Val Gly Thr Pro Ala Ala Ala
183     290             295             300
186 Ala Ala Ala Ala Ala Ala Ala Lys Ala Ala Lys Tyr Gly Ala Ala Ala
187 305             310             315                     320
190 Gly Leu Val Pro Gly Gly Pro Gly Phe Gly Pro Gly Val Val Gly Val
191             325             330             335
194 Pro Gly Ala Gly Val Pro Gly Val Gly Pro Gly Ala Gly Ile Pro
195             340             345             350
198 Val Val Pro Gly Ala Gly Ile Pro Gly Ala Ala Val Pro Gly Val Val
199     355             360             365
202 Ser Pro Glu Ala Ala Ala Lys Ala Ala Ala Lys Ala Ala Lys Tyr Gly
203     370             375             380
206 Ala Arg Pro Gly Val Gly Val Gly Gly Ile Pro Thr Tyr Gly Val Gly
207 385             390             395                     400
210 Ala Gly Gly Phe Pro Gly Phe Gly Val Gly Val Gly Gly Ile Pro Gly
211             405             410             415
214 Val Ala Gly Val Pro Ser Val Gly Gly Val Pro Gly Val Gly Gly Val
215             420             425             430
218 Pro Gly Val Gly Ile Ser Pro Glu Ala Gln Ala Ala Ala Ala Ala Lys
219         435             440             445
222 Ala Ala Lys Tyr Gly Val Gly Thr Pro Ala Ala Ala Ala Lys Ala
223     450             455             460
226 Ala Ala Lys Ala Ala Gln Phe Gly Leu Val Pro Gly Val Gly Val Ala
227 465             470             475                     480
230 Pro Gly Val Gly Val Ala Pro Gly Val Gly Val Ala Pro Gly Val Gly
231             485             490             495
234 Leu Ala Pro Gly Val Gly Val Ala Pro Gly Val Gly Val Ala Pro Gly
235             500             505             510
238 Val Gly Val Ala Pro Gly Ile Gly Pro Gly Gly Val Ala Ala Ala Ala
239         515             520             525
242 Lys Ser Ala Ala Lys Val Ala Ala Lys Ala Gln Leu Arg Ala Ala Ala
243     530             535             540
246 Gly Leu Gly Ala Gly Ile Pro Gly Leu Gly Val Gly Val Gly Val Pro
247 545             550             555                     560
250 Gly Leu Gly Val Gly Ala Gly Val Pro Gly Leu Gly Val Gly Ala Gly
251             565             570             575
254 Val Pro Gly Phe Gly Ala Gly Ala Asp Glu Gly Val Arg Arg Ser Leu
255             580             585             590
258 Ser Pro Glu Leu Arg Glu Gly Asp Pro Ser Ser Ser Gln His Leu Pro
259         595             600             605
262 Ser Thr Pro Ser Ser Pro Arg Val Pro Gly Ala Leu Ala Ala Ala Lys
263     610             615             620
266 Ala Ala Lys Tyr Gly Ala Ala Val Pro Gly Val Leu Gly Gly Leu Gly
267 625             630             635                     640
270 Ala Leu Gly Gly Val Gly Ile Pro Gly Gly Val Val Gly Ala Gly Pro
271             645             650             655
274 Ala Ala Ala Ala Ala Ala Ala Lys Ala Ala Ala Lys Ala Ala Gln Phe
```

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PATENT APPLICATION: US/10/509,472   TIME: 10:37:57

Input Set : **A:\pto.kd.txt**
Output Set: **N:\CRF4\10072004\J509472.raw**

```
275              660                 665                 670
278 Gly Leu Val Gly Ala Ala Gly Leu Gly Gly Leu Gly Val Gly Gly Leu
279          675                 680                 685
282 Gly Val Pro Gly Val Gly Gly Leu Gly Gly Ile Pro Pro Ala Ala Ala
283     690                 695                 700
286 Ala Lys Ala Ala Lys Tyr Gly Ala Ala Gly Leu Gly Gly Val Leu Gly
287 705              710                 715                 720
290 Gly Ala Gly Gln Phe Pro Leu Gly Gly Val Ala Ala Arg Pro Gly Phe
291              725                 730                 735
294 Gly Leu Ser Pro Ile Phe Pro Gly Gly Ala Cys Leu Gly Lys Ala Cys
295          740                 745                 750
298 Gly Arg Lys Arg Lys
299          755
302 <210> SEQ ID NO: 3
303 <211> LENGTH: 6
304 <212> TYPE: PRT
305 <213> ORGANISM: Artificial Sequence
307 <220> FEATURE:
308 <223> OTHER INFORMATION: A bioactive fragment of tropoelastin.
310 <400> SEQUENCE: 3
312 Val Gly Val Ala Pro Gly
313 1               5
316 <210> SEQ ID NO: 4
317 <211> LENGTH: 6
318 <212> TYPE: PRT
319 <213> ORGANISM: Artificial Sequence
321 <220> FEATURE:
322 <223> OTHER INFORMATION: Control random fragment.
324 <400> SEQUENCE: 4
326 Val Ser Leu Ser Pro Gly
327 1               5
331 <210> SEQ ID NO: 5
332 <211> LENGTH: 582
333 <212> TYPE: DNA
334 <213> ORGANISM: Homo sapiens
336 <400> SEQUENCE: 5
337 atggctgcca tccggaagaa actggtgatt gttggtgatg gagcctgtgg aaagacatgc      60
339 ttgctcatag tcttcagcaa ggaccagttc ccagaggtgt atgtgcccac agtgtttgag     120
341 aactatgtgg cagatatcga ggtggatgga aagcaggtag agttggcttt gtgggacaca     180
343 gctgggcagg aagattatga tcgcctgagg cccctctcct acccagatac cgatgttata     240
345 ctgatgtgtt tttccatcga cagccctgat agtttagaaa acatcccaga aaagtggacc     300
347 ccagaagtca agcatttctg tcccaacgtg cccatcatcc tggttgggaa taagaaggat     360
349 cttcggaatg atgagcacac aaggcgggag ctagccaaga tgaagcagga gccggtgaaa     420
351 cctgaagaag gcagagatat ggcaaacagg attggcgctt ttgggtacat ggagtgttca     480
353 gcaaagacca aagatggagt gagagaggtt tttgaaatgg ctacgagagc tgctctgcaa     540
355 gctagacgtg ggaagaaaaa atctggttgc cttgtcttgt ga                        582
358 <210> SEQ ID NO: 6
359 <211> LENGTH: 193
360 <212> TYPE: PRT
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RAW SEQUENCE LISTING   DATE: 10/07/2004
PATENT APPLICATION: US/10/509,472   TIME: 10:37:57

Input Set : A:\pto.kd.txt
Output Set: N:\CRF4\10072004\J509472.raw

```
361 <213> ORGANISM: Homo sapiens
363 <400> SEQUENCE: 6
365 Met Ala Ala Ile Arg Lys Lys Leu Val Ile Val Gly Asp Gly Ala Cys
366 1               5               10              15
369 Gly Lys Thr Cys Leu Leu Ile Val Phe Ser Lys Asp Gln Phe Pro Glu
370             20              25              30
373 Val Tyr Val Pro Thr Val Phe Glu Asn Tyr Val Ala Asp Ile Glu Val
374         35              40              45
377 Asp Gly Lys Gln Val Glu Leu Ala Leu Trp Asp Thr Ala Gly Gln Glu
378     50              55              60
381 Asp Tyr Asp Arg Leu Arg Pro Leu Ser Tyr Pro Asp Thr Asp Val Ile
382 65              70              75              80
385 Leu Met Cys Phe Ser Ile Asp Ser Pro Asp Ser Leu Glu Asn Ile Pro
386             85              90              95
389 Glu Lys Trp Thr Pro Glu Val Lys His Phe Cys Pro Asn Val Pro Ile
390             100             105             110
393 Ile Leu Val Gly Asn Lys Lys Asp Leu Arg Asn Asp Glu His Thr Arg
394         115             120             125
397 Arg Glu Leu Ala Lys Met Lys Gln Glu Pro Val Lys Pro Glu Glu Gly
398     130             135             140
401 Arg Asp Met Ala Asn Arg Ile Gly Ala Phe Gly Tyr Met Glu Cys Ser
402 145             150             155             160
405 Ala Lys Thr Lys Asp Gly Val Arg Glu Val Phe Glu Met Ala Thr Arg
406             165             170             175
409 Ala Ala Leu Gln Ala Arg Arg Gly Lys Lys Lys Ser Gly Cys Leu Val
410         180             185             190
413 Leu
```

VERIFICATION SUMMARY   DATE: 10/07/2004
PATENT APPLICATION: **US/10/509,472**   TIME: 10:37:58

Input Set : **A:\pto.kd.txt**
Output Set: **N:\CRF4\10072004\J509472.raw**

L:10 M:270 C: Current Application Number differs, Replaced Current Application Number
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date